

Before the
Federal Communications Commission
Washington, D. C. 20554

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In the Matter of)

)
Reallocation of Television Channels)
60-69, the 746-806 MHZ Band)

ET Docket 97-157
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Comments of the National Translator Association

The National Translator Association (NTA) is a non-profit volunteer organization dedicated to the preservation of free over-the-air TV in all areas of the United States. The membership is made up of organizations and individuals who are translator licensees, persons who install and maintain translators, primary stations that operate translators and others interested in the objectives of the organization.

Introduction

The NTA has pointed out in several comments in MM Docket 87-268 that the loss of TV channels 60 to 69 would have a serious impact on the supplemental service provided by translators in extending the TV signals to unserved areas and filling in shadowed areas within the coverage areas of TV stations. It has also pointed out that translators were originally required to use channels 70-83 and, when these channels were assigned to land mobile use, translators were for a time required to use channels 55-69.

It is distressing that this NPRM opens:

"By this action, we propose to reallocate the 746-806 MHZ band currently comprising television channels 60-69."

The thrust of the NPRM seems entirely to the question of how to reallocate this spectrum, completely by passing the question of whether the reallocation should take place at all, at least at this time when TV broadcasting is in the period of transitioning to digital television.

Then there is the question of how much free over-the-air broadcasting should be available to the public. We understand that digital channels can be packed together more tightly in a geographical area. Should this feature be used to make more channels available to the public in contrast to reducing the spectrum? We cannot find that this public interest question has been examined at any point in the whole sequence of events leading to digital TV.

The NTA does not have built-in expertise in land mobile communications nor any budget to hire outside experts but we remain very skeptical that public safety users have come even close to getting the full measure of results from the spectrum currently available in the aggregate to this service.

Impact on Translators

The NPRM¹ states that channels 60-69 are only lightly used by full service TV stations. However, translators make very significant use of these channels, because:

- 1) these channels have been most free from interference
- 2) by using the high channels it has been possible to closely group channels at a location, e.g. alternate channels such as 60, 62, 64, 66 & 68. This makes for efficient system design and frequently allows combining several channels into one transmitting antenna
- 3) for a considerable period of time after the loss of channels 70-83 translators were mandated by the FCC rules to use channels 55-69

Early in the history of translators the word "secondary" became associated with their use. This was originally intended to mean that a translator had to operate on a channel that would not cause interference to any regular TV station. At that time there was ample spectrum and the word secondary was adopted quite casually. More recently the presence of this word has become a convenient basis for denigrating the importance of translators and an excuse for ignoring them when convenient. The people who receive most or all of their free over-the-air TV feel that translators are an integral part of the whole over-the-air television distribution plan and they should be treated accordingly.

¹NPRM in this Docket, page 2, ¶ 2.

**Many translators will be forced to change channel and their best
hope of finding a replacement channel is in the range of 60-69**

As the Part 73 digital TV stations are built many translators and LPTV stations will be forced to seek new channels. As an example, an estimate has been prepared of the number of such stations in the 150 mile "Front Range Corridor from Pueblo to Colorado Springs to Denver to Fort Collins in Colorado. It appears that when all of the DTV stations assigned by the 6th Report and Order are built there will be 10 or 11 translators and LPTV stations that will have had to change channels in this area.

A detailed list is presented in Appendix I.

Far and away the best hope of finding replacement channels is to look to the channel range of 60 to 69 where there is the least congestion.

**Multiple Channel Translator Systems in Rural Areas
Have Unique Problems in Finding Replacement Channels**

Translators bringing multiple channels to rural areas have in many instances evolved into complex interwoven systems. The channel selection process must take into account:

- 1) the output channels at a location must not cause interference to the incoming off-the-air signals of any of the translators.
- 2) the output channels must not cause interference to primary stations, even those at a considerable distance.
- 3) the output channels must not cause interference to other translator systems located in the general vicinity but serving different areas or receive interference from such other systems.
- 4) ideally the output channels should be closely grouped for both spectrum conservation and to allow the combining of multiple channels into one transmitting antenna.

An example of a complex system that is not atypical and illustrates this complexity is shown in Appendix II.

Thus, if there is any change in the status of channels 60-69, there will be significant disruptions to dozens of translator systems and hundreds of individual translators, the majority of which were built with contributions or local tax money and some of which were built with federal NTIA grants. Many investments will at best be protected only by the expenditure of significant sums per translator and at worst lost altogether.

The Public Safety Wireless Committee
Understandably Has A Specific Agenda

The Public Safety Wireless Committee which has provided the report² which apparently is providing a considerable part of the impetus for the proposed assignment of TV channels to public safety is apparently made up of representatives of not only public safety organizations but also of equipment manufacturers, both of whom have a vested interest in seeing spectrum reassigned. While none of us want to deny public safety organizations the facilities they need to protect us, it is appropriate to view the amount of spectrum requested and the time urgency in the subject report with some scepticism, particularly as granting their full requests will have a significant adverse impact on others who are also serving the public although in a less urgent way.

In this "Report" much is made of the need for more spectrum for interoperability between various public safety organizations. We understand that there is frequently reluctance on the part of public safety organizations to have other organizations have any access to their channels of communication, even in an emergency when inter organization communications is important. We do not understand why public safety organizations operating in the same area cannot equip themselves with at least some radios with more channels including some normally used by other organizations. Thus, for instance, the police in a city could talk directly with members of the sheriff's organization in the county which surrounds the city.

Lastly, we note that the areas where presumably public safety organizations might first start the use of new frequencies are in major metropolitan areas. Ironically these are the areas where, translator considerations aside, it will be hardest to clear any appreciable spectrum. For instance, in the Los Angeles area there is only one channel in the 60-69 range that is not taken by either an NTSC operating TV station

² FINAL REPORT OF THE PUBLIC SAFETY WIRELESS ADVISORY COMMITTEE to the Federal communications Commission and the National Telecommunications and Information Administration, dated September 11, 1996.

or a DTV assignment. The one channel, 67, could be used for a new purpose only if the new use could operate with no guard band from the DTV channels which soon will be built on channels 66 and 68.

Appendix III provides a channel by channel listing.

Thus, new technologies will have to be developed and brought into use if the claimed public safety needs are to be met in major metropolitan areas during the transition period when both NTSC and DTV stations are operating. If new techniques do become available and related hardware produced, then it can be used in less congested areas and provide the needed communications without taking spectrum from TV (or at least taking less) during the transition period.

TV Needs During the Transition Period

The NTA believes there are going to be unanticipated problems in bringing DTV coverage to the full nation and replicating the free over-the-air coverage available now. Shifting from analog TV to a digital TV transmission system on a mandated time schedule is equivalent to having forced the transition from rotary dial telephones to touch tone telephones on a similar schedule. That process evolved over a whole generation or more with considerable trial and error.

There has been only a small fraction of the field testing that would be needed to ferret out problems that are inevitably going to arise. For instance, do we really know that operation on adjacent channels will be entirely successful on a widespread basis? Will it ultimately be necessary to abandon channels 2 to 6 for digital purposes because of the propagation characteristics of this band and/or the impulse noise found there. Who knows what other problems may arise when a dozen or more DTV signals are mixed in with the analog signals in metropolitan areas. This comment is made without disrespect to the laboratory testing which by all reports was very thorough. However, lab testing is just that and the field testing was very limited. We cannot know what changes in digital channel assignments may be necessary and taking any spectrum out of the TV band during the transition period reduces the options available for making any necessary changes.

There is a naturally occurring time to reduce the TV band, assuming there is a reasoned decision that the public does not need more over-the-air free TV. That time is at the end of the transition period when all TV stations are digital.

**Any Spectrum Transferred to Public Safety
Should be in One Contiguous Block**

While the NTA does not concede that in balance it is sensible to take any channels out of the TV spectrum at the present time, we recognize there are powerful economic and political forces pushing for such a change. The following is therefore suggested:

We in the translator world have lived with intermixed spectrum segments. There are two Land Mobile channels assigned within the UHF band in each of thirteen cities³ These channels have been assigned a protected radius of 130 km (80.8 miles) with stringent protection from cochannel and adjacent channel LPTV stations (including translators). Each such assigned channel prevents the use of the channel itself and both adjacent channels in or near the city in question. For instance, Pittsburgh is assigned channels 14 and 18, blocking the use in that area of channels 14, 15, 17, 18 & 19 for translator use.

It must be assumed that, if the two separate segments, channels 63-64 and 68-69 are the final arrangement, then the use not only of these channels but also of those adjacent will be greatly inhibited. As public safety expands its use of these two segments channels 62, 63, 64, 65, 67, 68 and 69, seven channels in all, will progressively be lost to television.

Whatever bandwidth is assigned to public safety should, as a matter of spectrum use efficiency, be in one contiguous block, and, for obvious reasons, be at the top of the band.

Recommendations

The NTA has stated substantial reasons why the prudent course of action is to leave the TV band intact at least during the transition period. However, recognizing that we are almost certainly going to get stepped on again as we did in the early 1970's when channels 70-83 were removed, we suggest the following course of action, which we think is more even handed than that outlined in the NPRM:

- 1) Only one channel, generally 69, should be made available for public safety use at this time.
- 2) Channels 68, 67 and 66 could be reserved for assignment to public safety purposes after the transition to digital TV is complete.

³FCC rules §74.709

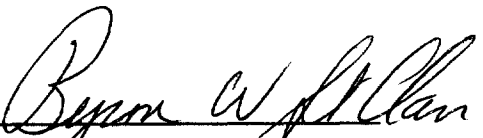
3) Any public safety organization taking up the use of spectrum in channel 69 should be required to coordinate with any translator licensee or permittee close enough to be affected. This coordination should provide a timely notice to the translator licensee and include reasonable efforts to minimize the impact on the translator and any consequent loss of service to the public.

4) It must be recognized that most translators are tax or contribution supported and even the others, mostly station owned, are providing a public service. When a change is made necessary by the initiation of public safety use, the using organization should, as a matter of simple fairness, cover the cost of any necessary change to the translator installation.

Please do what you can to minimize the devastating impact which the full adoption of the plan outlined in the NPRM will have on the translator delivery of signals to otherwise unserved areas.

Respectfully submitted,

The National Translator Association

by 

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EXHIBIT I

Impact of the Assigned DTV Channels on Translators and LPTV Stations in the Front Range Area of Colorado

The following is a tabulation of the translator/LPTV stations in the Front Range Area of Colorado that will be displaced as the build out of the DTV stations occurs. The area under consideration stretches about 150 miles from Pueblo to Colorado Springs to Denver to FT. Collins. Translators and LPTV stations to the West in the mountainous areas are presumed to be shielded by terrain and none are included in this list.

This list is offered as one example of a problem that repeats in many areas. The details will vary from place to place but the impact is there.

<u>Translator/LPTV Station</u>	<u>Location</u>	<u>Impacted by</u>
K16AC	Akron	DTV Ch 16, Denver
K16CM	Aurora	DTV Ch 16 & 18 Denver, DTV Ch 15 Boulder
K17CF	Boulder	DTV Chs 16, 17, & 18, all Denver
K17EN	Ft. Collins	DTV Ch 17, Denver
K13OI (Ch 18 STA)	Denver	DTV Chs 17, 18 & 19, all Denver
K24DJ	Pueblo	DTV Ch 24, Colorado Springs
K26AB	Anton	DTV Ch 26, Longmont
K33DN	Denver	DTV Chs 32 & 34 Denver (not "colocated")
K36CP	Aurora	DTV Ch 35, Denver
K44DK	Denver	DTV Ch 44, Denver (Questionable as these are nearly colocated)
K44CT	Boulder	DTV Ch 44, Denver

In addition the following stations in the area would be impacted by channels 63-64 & 68-69 being assigned to public safety use:

K63DW	Colorado Springs
K03DL (Ch 63 STA)	Denver
K64AJ	Cheyenne Wells
K68AQ	Cheyenne Wells
K68BY	Colorado Springs
K69AN	Las Animas

EXHIBIT II

Example of An Area Wide Translator System - Mohave County, AZ

MOHAVE COUNTY TELEVISION TRANSLATOR FLOW CHART SHOWN BY CALL SIGN

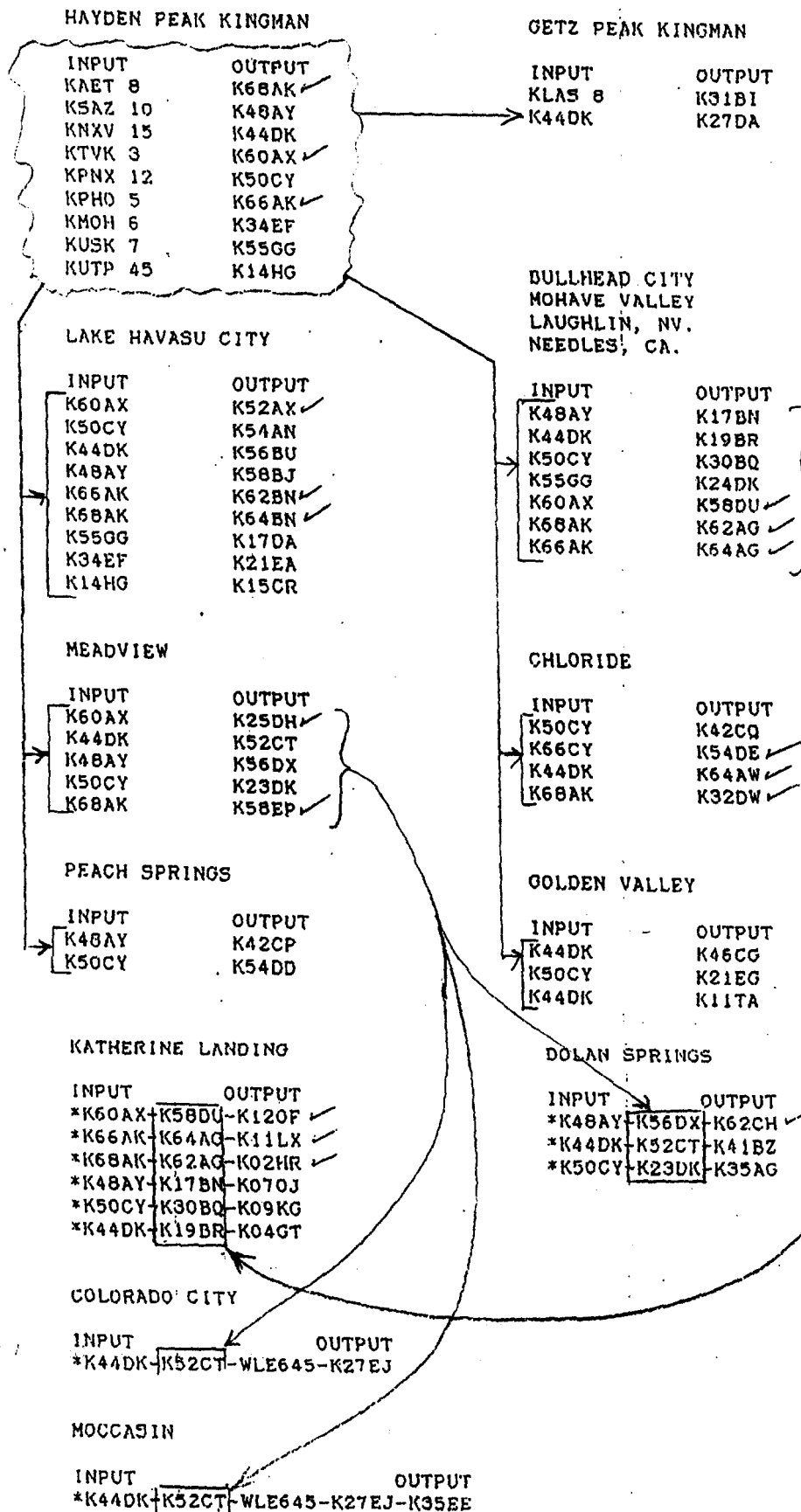


EXHIBIT III

STATUS OF CHANNELS 60-69 IN THE LOS ANGELES AREA

The following list of channels is presented to illustrate that taking channels out of the TV band for public safety use does not provide a solution to the need of this group during the transition to digital TV.

<u>Channel</u>	<u>Use</u>	<u>Location</u>
59	DTV	Mt. Wilson
60	DTV	Mt. Wilson
61	DTV	Sunset Ridge
62	KRCA (NTSC)	Sunset Ridge
63	KADY (NTSC)	Oxnard (55 miles west of central Los Angeles)
64	KHIZ	Barstow 51 miles northeast
65	DTV	Mt. Wilson
66	DTV	Mt. Wilson
67	Open*	
68	DTV	Mt. Wilson
69	DTV	Sunset Ridge

*Channel 67 is 15 channels above NTSC station KVEA, channel 52 (Mt. Wilson), and thus any signal on this channel is on the image of a receiver tuned to KVEA (a "taboo" combination).